

WHAT IS CLAIMED IS:

5 **Sub 1.0** 1. A disk unit in which an arm having a head on a top is actuated, while a disk is rotated, so that a position of the head is moved with respect to the disk to perform write and read of data to and from the disk by the head, said disk unit comprising:

10 a temperature sensor for detecting a temperature; and

heating means for heating when said temperature sensor detects a temperature which is less than a predetermined first temperature.

15 2. A disk unit according to claim 1, wherein said disk unit further comprises a first motor for driving said disk, and said heating means includes means for heating by conducting a current through a fixed phase of said first motor.

20 3. A disk unit according to claim 1, wherein said disk unit further comprises a second motor for driving said arm, and said heating means includes means for heating by conducting through said second motor a current which is unnecessary for operation of said arm.

25 4. A disk unit according to claim 1, wherein said heating means includes a heater.

5. A disk unit according to claim 1, wherein said heating means includes a Peltier element.

5 6. A disk unit in which an arm having a head on a top is actuated, while a disk is rotated, so that a position of the head is moved with respect to the disk to perform write and read of data to and from the disk by the head, said disk unit comprising:

10 a temperature sensor for detecting a temperature;

a clock generating circuit for generating a plurality of sorts of operational clocks which are mutually different in frequency; and

15 a control circuit for controlling an operation of said disk unit in such a manner that upon receipt of any one sort of operational clock from said clock generating circuit, a processing is performed at a processing speed according to a frequency of the received operational clock,

20 wherein said control circuit operates at an operational clock different in accordance with a temperature.

25 7. A disk unit according to claim 1, wherein said disk unit further comprises a communication circuit for communication with a host, and when said temperature sensor detects a temperature which is less than the first temperature, said communication circuit informs the host

that heating is performed.

8. A disk unit according to claim 1, wherein said disk unit further comprises a control circuit for controlling an operation of said disk unit, and when said temperature sensor detects a temperature which is less than a predetermined second temperature lower than the first temperature, said control circuit stops the operation of said disk.

9. A disk unit according to claim 8, wherein said disk unit further comprises a communication circuit for communication with a host, and when said temperature sensor detects a temperature which is less than the second temperature, said communication circuit informs the host that said disk unit is not operable.

10. A disk unit in which an arm having a head on a top is actuated, while a disk is rotated, so that a position of the head is moved with respect to the disk to perform write and read of data to and from the disk by the head, said disk unit comprising:

a temperature sensor for detecting a temperature;

a control circuit for controlling an operation of

said disk unit; and

an outline having a door which opens and closes in accordance with a control,

wherein said control circuit causes said door to open when said temperature sensor detects a temperature which is less than a predetermined temperature.

5 11. A disk unit in which an arm having a head on a top is actuated, while a disk is rotated, so that a position of the head is moved with respect to the disk to perform write and read of data to and from the disk by the head, said disk unit comprising:

10 a temperature sensor for detecting a temperature;
and

 an access circuit for accessing said disk,
 wherein said access circuit performs, when writing of data into said disk is performed in a case where said
15 temperature sensor detects a temperature which is out of a predetermined temperature range, a writing confirmation operation for comparing written data with read data through reading data written into said disk.

20 12. A disk unit according to claim 11, wherein said access circuit again writes the written data into a same area on said disk and again reads the written data in a case where it is decided by the writing confirmation operation that the written data is not coincident with the
25 read data, and said access circuit writes the written data into a different area on said disk in a case where it is again decided by the writing confirmation operation that

the written data is not coincident with the read data.

13. A disk unit in which an arm having a head on a top is actuated, while a disk is rotated, so that a position of the head is moved with respect to the disk to perform write and read of data to and from the disk by the head, said disk unit comprising:

a temperature sensor for detecting a temperature; and

a heat generation suppressing means for suppressing generation of heat when said temperature sensor detects a temperature exceeding a predetermined third temperature lower.

14. A disk unit according to claim 13, wherein said heat generation suppressing means includes a Peltier element.

15. A disk unit according to claim 13, wherein said disk unit further comprises a communication circuit for communication with a host, and when said temperature sensor detects a temperature exceeding the third temperature, said communication circuit informs the host that generation of heat is suppressed.

16. A disk unit according to claim 1, wherein said disk unit further comprises a control circuit for

controlling an operation of said disk unit, and when said temperature sensor detects a temperature exceeding a predetermined fourth temperature which is higher than the third temperature, said control circuit stops the operation of said disk.

17. A disk unit according to claim 16, wherein said disk unit further comprises a communication circuit for communication with a host, and when said temperature sensor detects a temperature exceeding the fourth temperature, said communication circuit informs the host that said disk unit is not operable.

18. A disk unit in which an arm having a head on a top is actuated, while a disk is rotated, so that a position of the head is moved with respect to the disk to perform write and read of data to and from the disk by the head, said disk unit comprising:

a humidity sensor for detecting a humidity; and heating means for heating when said humidity sensor detects a humidity exceeding a predetermined humidity.

19. A disk unit according to claim 18, wherein said disk unit further comprises a first motor for driving said disk, and said heating means includes means for heating by conducting a current through a fixed phase of

said first motor.

20. A disk unit according to claim 18, wherein said disk unit further comprises a second motor for driving said arm, and said heating means includes means for heating by conducting through said second motor a current which is unnecessary for operation of said arm, at time of stop of operation of said arm.

21. A disk unit according to claim 18, wherein said heating means includes a heater.

22. A disk unit according to claim 18, wherein said heating means includes a Peltier element.

23. A disk unit in which an arm having a head on a top is actuated, while a disk is rotated, so that a position of the head is moved with respect to the disk to perform write and read of data to and from the disk by the head, said disk unit comprising:

a humidity sensor for detecting a humidity;

a clock generating circuit for generating a plurality of sorts of operational clocks which are mutually different in frequency; and

a control circuit for controlling an operation of said disk unit in such a manner that upon receipt of any one sort of operational clock from said clock generating

circuit, a processing is performed at a processing speed according to a frequency of the received operational clock, wherein said control circuit operates at an operational clock different in accordance with a humidity.

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24. A disk unit according to claim 18, wherein said disk unit further comprises a communication circuit for communication with a host, and when said humidity sensor detects a humidity exceeding the predetermined humidity, said communication circuit informs the host that heating is performed.

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25. A disk unit in which an arm having a head on a top is actuated, while a disk is rotated, so that a position of the head is moved with respect to the disk to perform write and read of data to and from the disk by the head, said disk unit comprising:

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a humidity sensor for detecting a humidity;

a control circuit for controlling an operation of said disk unit; and

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an outline having a door which opens and closes in accordance with a control,

wherein said control circuit causes said door to open when said humidity sensor detects a humidity exceeding a predetermined humidity.

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26. A disk unit in which an arm having a head on

a top is actuated, while a disk is rotated, so that a position of the head is moved with respect to the disk to perform write and read of data to and from the disk by the head, said disk unit comprising:

5 a humidity sensor for detecting a humidity; and
 an access circuit for accessing said disk,
 wherein said access circuit performs, when writing
of data into said disk is performed in a case where said
humidity sensor detects a humidity exceeding a
10 predetermined humidity, a writing confirmation operation
for comparing written data with read data through reading
data written into said disk.

27. A disk unit according to claim 26, wherein
15 said access circuit again writes the written data into a
same area on said disk and again reads the written data in
a case where it is decided by the writing confirmation
operation that the written data is not coincident with the
read data, and said access circuit writes the written data
20 into a different area on said disk in a case where it is
again decided by the writing confirmation operation that
the written data is not coincident with the read data.

28. A disk unit in which an arm having a head on
25 a top is actuated, while a disk is rotated, so that a
position of the head is moved with respect to the disk to
perform write and read of data to and from the disk by the

head, said disk unit comprising:

a double-structure of outline comprising a first outline and a second outline surrounding said first outline.

5 29. A disk unit according to claim 28, wherein a heat-insulating agent is provided between the first outline and the second outline.

10 30. A disk unit according to claim 28, wherein a dehumidifying agent is provided between the first outline and the second outline.

15 31. A disk unit according to claim 28, wherein each of the first outline and the second outline has an air vent, and said disk unit further comprises means for blocking or relatively lowering a flow of air in an area coupling the air vent of the first outline with the air vent of the second outline, of a space formed between the first outline and the second outline.

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32. An information processing apparatus having a disk unit for performing reading and writing of information for a disk of the disk unit via an interface, said information processing apparatus comprising:

25 a temperature sensor for detecting a temperature;
and

a control circuit for controlling a heating value

of said disk unit in accordance with a temperature detected by said temperature sensor.

33. An information processing apparatus according to claim 32, wherein said control circuit causes a current to conduct through a fixed phase of a motor for rotating a disk of said disk unit, when said temperature sensor detects a temperature which is lower than a predetermined temperature.

34. An information processing apparatus according to claim 32, wherein when said temperature sensor detects a temperature which is out of a predetermined temperature range, said disk unit informs via said interface that said disk unit is not operable.